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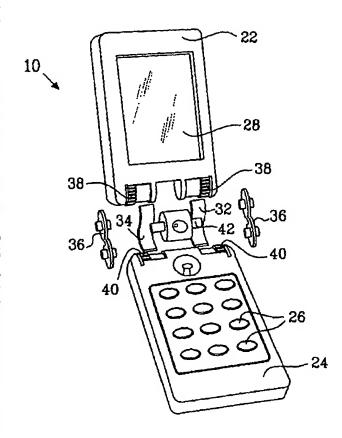
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[Continued on next page]

(54) Title: FLEXIBLE CONDUCTORS CONNECTED BETWEEN TWO PARTS OF A PORTABLE ELECTRONIC DEVICE



(57) Abstract: The present invention is directed towards a portable electronic device comprising a first part including electrical circuits and having an exterior side, an interior side (24), and a bottom side, a second part also including electrical circuits and also having an exterior side, and interior side (22) and a bottom side, at least one hinge (36) connecteding the bottom sides of the first and second parts to each other and allowing rotation of one part in relation to the other, and at least one first set (32) of flexible electrical conductors connected to the first part at the exterior side adjacent the bottom side thereof and to the second part at the interior side (22) adjacent the bottom side thereof. The first part can also comprise a camera having a lens on the interior side and the second part can comprise a display (28) provided on the interior side.

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ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F1/16

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC 7-606F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

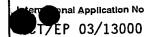
Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUME	ENTS CONSIDERED TO BE RELEVANT	
Category °	Cilation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 178 647 A (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) 6 February 2002 (2002-02-06)	1,3, 5-10,12, 14-17
Α	abstract	2,4,6, 11,13, 18-20
	page 2, column 1, line 7 - page 6, column 9, line 7 figures 1-11	
Α .	US 2001/055384 A1 (YAMAZAKI ET AL.) 27 December 2001 (2001-12-27) abstract page 4, column 2 - page 25, column 1	1-20
	figures 1a,1b,3a,3b,4a,4b,28a,28b,28c 	
		}

X Further documents are listed in the continuation of box C.	χ Patent family members are listed in annex.		
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Date of the actual completion of the international search 22 June 2004	Date of mailing of the international search report $06/07/2004$		
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer GONZALEZ GUTIERREZ		

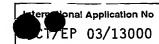
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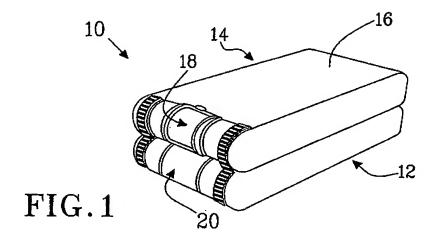
(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT						
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.				
1	WO 01/84269 A (MOTOROLA INC.) 8 November 2001 (2001-11-08) abstract pages 3-12; figures 1-19	1-20				
A	US 6 266 236 B1 (KU ET AL.) 24 July 2001 (2001-07-24) abstract the whole document	1-20				

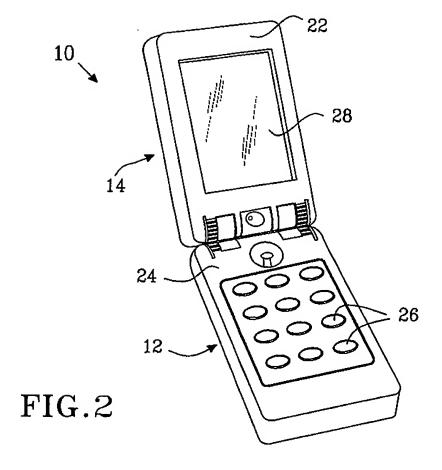
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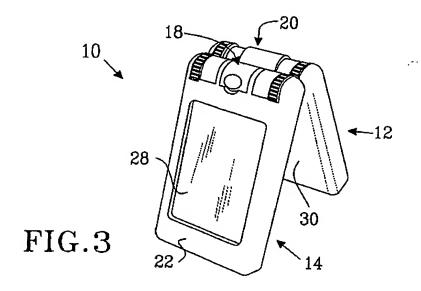
INTERNATIONAL SEARCH REPORT

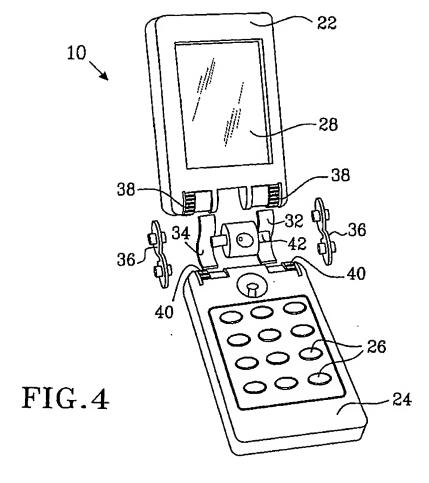


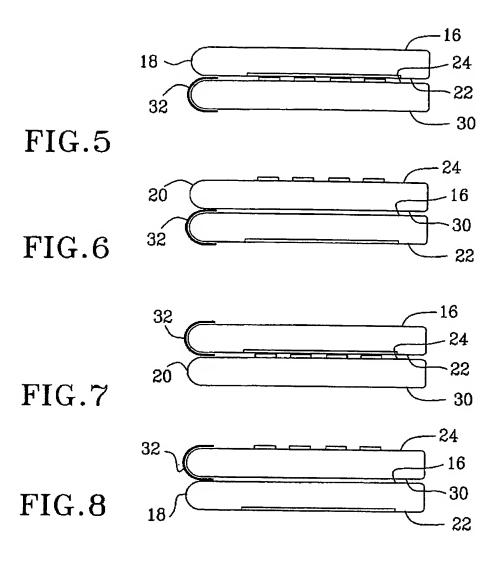
Patent document cited in search report		Publication date	Patent family member(s)		Publication date
EP 1178647	A	06-02-2002	JP JP CN EP US	2002051131 A 2002051132 A 1337813 A 1178647 A 2002042252 A	15-02-2002 27-02-2002 200-02-2002
US 2001055384	A1	27-12-2001	JP	2001339492 A	07-12-2001
WO 0184269	A .	08-11-2001	US AU BR CN EP JP WO US	2003532351 T	12-11-2001 10-06-2003 16-07-2003 12 02-04-2003 12 28-10-2003 142 08-11-2001
US 6266236	B1	24-07-2001	US TW WO	6005767 / 393597 E 9926125 /	11-06-2000

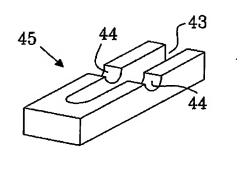














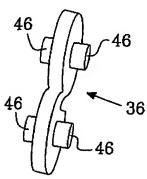


FIG. 10

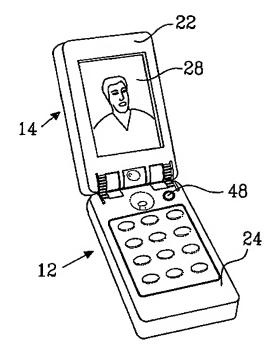


FIG.11

